



CSA Z462 – Arc Flash and Shock Workplace Training

8-Hour Course

OVERVIEW

This course provides a thorough knowledge of the recommended safe behaviors for those who work around electrical hazards. Attendees gain an understanding of the latest strategies in CSA Z462 and due diligence necessary to address OH&S legislation at the province and federal level. Electrical workers and safety professionals learn key practical information: best work practices in electrical safety and how to apply them in real-world situations (120 to 13.8 kV, ac/dc as applicable).

REFERENCES

Current CSA Z462 Standard, OH&S Regulations (as applicable in Canada)

MATERIALS

e-Hazard [CSA Z462 Training Workbook](#), Current CSA Z462 Standard

1. Electrical Safety Facts/Risks

2. Electrical Related Government Regulations & Standards

- Applicable: CSA Z462/OH&S
- How Standards Are Used
- Key Definitions/Issues

3. Shock Hazards & Protection Strategies

- Types
- Understanding Shock
- Variables Impacting Hazard
- Protection Boundaries
- Voltage Rated Gloves and Other Shock PPE
- Rated Insulated Tools and Other Equipment

4. Arc Flash Hazards & Protection Strategies

- Causes/Types
- Arc Blast
- Common Places
- Mitigating Hazard through Engineering Design and Work Methods
- Arc Flash Boundaries
- Practical Application

5. Arc Rated Personal Protective Equipment

- Overview
- Protecting Head, Hands and Feet
- PPE Programs: Categories, Levels, Systems
- Environmental Considerations
- PPE Guidelines and Maintenance

6. Job Planning

- Elements of Safety Planning
- Job Briefing
- Energized Electrical Work Permit

7. Risk Assessment Procedure

- Components of Assessment
- Methods: Tables or Incident Energy Calculations
- Labeling
- Steps to Determine PPE Required
- Task Assessment Exercise

8. Safety Related Work Practices

- Defining “Electrically Safe Work Condition”
- Identifying and Securing Boundaries
- Tools and Equipment
- Best Practices for Lock Out/Tag Out, Verifying De-energization and LV Grounding
- Situational Conditions
- Special Equipment
- Training
- Administrative Guidelines
- Recognizing Hazards and Poor Work Practices